

Worldwide, approximately 570,000 women are diagnosed with cervical cancer each year, contributing an estimated 300,000 deaths annually.¹ Nearly 90% of deaths² occur in low- and middle-income countries where a majority of women do not have access to primary prevention (i.e., the human papillomavirus (HPV) vaccine), or secondary prevention (i.e., adequate screening and care that can prevent the onset of cervical cancer).³ Once diagnosed, few women in low-resource settings have access to surgical and radiotherapy treatment for advanced lesions. As a result, cervical cancer incidence and mortality disproportionately burden women living in resource-limited settings.



The effects of cervical cancer are compounded by HIV. HPV, the virus that causes the majority of cervical cancer cases, is more common and persists longer in women living with HIV (WLHIV). Additionally, WLHIV are more likely to be infected with more than one cancer causing type of HPV and are at higher risk of developing cervical pre-cancer. In WLHIV, the progression from cervical pre-cancer to cancer is more rapid than in women without HIV.⁴ Cervical cancer prevention and treatment programs in low- and middle-income countries are often overshadowed by competing health priorities such as HIV/AIDS, tuberculosis, and malaria. Stigma related to screening and treatment also remains a barrier. Consequently, few programs are allocated the resources necessary to implement at scale. Continued investments in sustainable, scalable solutions are crucial to reduce cervical cancer morbidity and mortality.

I-TECH CAPACITY

The International Training and Education Center for Health (I-TECH) brings more than 15 years of demonstrated experience in health workforce development, clinical mentoring, direct service delivery, clinical quality assurance, and monitoring and evaluation in Asia, Africa, Eastern Europe, and the Caribbean Region. I-TECH strengthens, expands access to, and assures quality of cervical cancer screening and treatment services, updates national cervical cancer screening and treatment guidelines, and strengthens supervision, mentorship, and certification systems for cervical cancer providers.

A History of Capacity Building

According to some estimates,[†] **Haiti** has the highest incidence and mortality rates of cervical cancer in the Western Hemisphere. From 2013 to 2014, I-TECH supported cervical cancer screening and treatment through the organization of trainings on visual inspection with acetic acid (VIA) and cryotherapy, which helped build the capacity of providers and contributed to risk reduction in cervical cancer, as well as early diagnosis and treatment. Over that period, 156 women were screened, of which 23 were found to have pre-cancerous lesions. Thirteen of these women received cryotherapy and another 10 had a cervical biopsy.

[†] Roger E1, Nwosu O. Diagnosing Cervical Dysplasia Using Visual Inspection of the Cervix with Acetic Acid in a Woman in Rural Haiti. *Int J Environ Res Public Health*. 2014 Nov 28;11(12):12304-11.

¹ <https://www.who.int/reproductivehealth/topics/cancers/en/>

² WHO, *Comprehensive Cervical Cancer Control: A guide to essential practice*, Second edition. 2014.

³ WHO, https://apps.who.int/iris/bitstream/handle/10665/144785/9789241548953_eng.pdf;jsessionid=04F3F8DADA5E2B549AE907EEB4FDEB16?sequence=1

³ WHO, <https://www.who.int/cancer/prevention/diagnosis-screening/cervical-cancer/en/>

⁴ https://aidsinfo.nih.gov/contentfiles/lvguidelines/glchunk/glchunk_343.pdf

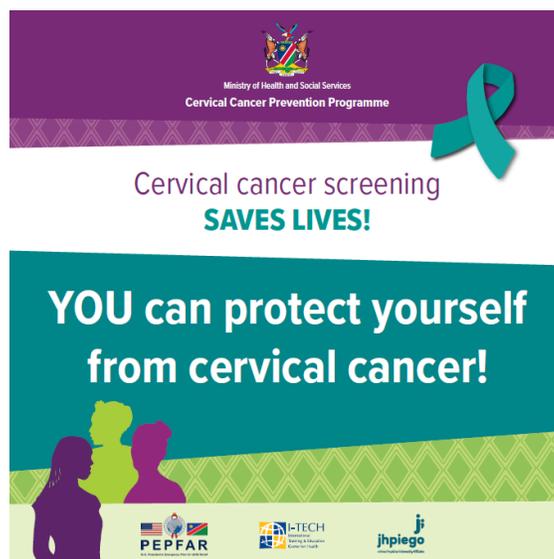
I-TECH Case Studies

In 2017, **Namibia's** Ministry of Health and Social Services (MoHSS) requested technical assistance from I-TECH in the development and dissemination of the national Cervical Cancer Prevention Guidelines. These guidelines include algorithms for screening, referral, equipment operation job aids, monitoring and evaluation tools, and the introduction of ablative treatment methodologies, which encompass both thermocoagulation and cryotherapy. At the end of 2018, I-TECH supported the MoHSS in integrating cervical cancer screening and treatment with PEPFAR-supported HIV clinical service delivery leading the development of the national training curriculum for VIA and ablative treatment as well as facilitating the pilot and national scale-up trainings for nurses and medical officers. As of October 2020, 250 nurses and physicians have been trained nationwide, and 52 VIA screening sites and 15 treatment referral sites have been established for precancerous lesions not eligible for ablative treatment. I-TECH also provided technical assistance in the development of a quality assurance system including certification, mentorship, and supportive supervision procedures and tools.

In addition, I-TECH developed information, education and communication (IEC) materials, including digital content, to raise cervical cancer awareness and serve as a reminder during the COVID-19 pandemic that preventative cancer screening for women should continue. I-TECH supports the provision of cervical cancer screenings and treatment of pre-cancerous lesions in seven regions of Namibia through staff, equipment, supplies, quality assurance, and technical assistance. As of October 2020, I-TECH supported more than 22,000 screenings, 15,000 of which were for HIV-positive individuals. Over 2,800 individuals have received treatment for precancerous cervical lesions (1,830 HIV-positive), representing 82.5% of those eligible for treatment.

I-TECH's network partner in **Botswana**, the Botswana Training and Education Center for Health (B-TECH), will soon begin work on a national cervical cancer and treatment program, focused on women living with HIV. Activities will include providing quality routine cervical cancer screening and treatment for all eligible women living with HIV at high-volume ART sites in 12 districts, as well as raising awareness among this population. B-TECH—in conjunction with I-TECH, University of Botswana, and the National Cervical Cancer Prevention Program—will align national screening and treatment guidelines with WHO standards to ensure sustainability. B-TECH will also work closely with national laboratories to increase capacity for quality cervical cancer screening services.

In **Malawi**, cervical cancer is the leading cause of cancer death among women.⁵ This is compounded by the high HIV prevalence rate of 11% among women ages 15-49. In response, the MOH developed the National Cervical Cancer Control Strategy 2016-2020. The strategy outlines comprehensive interventions, including the integration of cervical cancer screening services into HIV care. With the Department of Reproductive Health and the Department of HIV/AIDS in Malawi, I-TECH supported the review and update of the National Cervical Cancer Guidelines and the monitoring and evaluation (M&E) framework. In addition, the team convenes cervical cancer partner meetings to discuss draft standard operating procedures and the M&E framework, revise monitoring tools, and conduct situational analyses. The team supported a survey to establish which sites in the South West Zone had received equipment for cervical screening and treatment services from the MOH, and found that 45



⁵ Government of Malawi, National Cervical Cancer Control Strategy 2016-2020.

health facilities offer services. I-TECH is working with the MOH to ensure same-day treatment or follow-up for all pre-cancerous lesions.

From October 2019 through September 2020, I-TECH's network partner in **Zimbabwe**, the Zimbabwe Training, Technical Assistance, and Education Center for Health (Zim-TTECH), supported cervical cancer screening for 63,354 HIV-positive women. Of those clients screened, 6% tested positive for lesions, and 1% (653) had suspected cancer. A total of 1,978 clients received treatment, representing a 57% treatment rate, with lower numbers in January-June 2020 due to the COVID pandemic. All cervical screening images taken by nurses were reviewed within a week by a gynecologist, who provided feedback to the nurses to inform care delivery to the client. While cervical cancer screening was performed in all districts, more than a third of screening outputs occurred in Harare, which had existing capacity to provide services for cervical cancer. Once COVID restrictions were partially lifted, the team conducted a large number (628) of loop electrosurgical excision procedures (LEEPs) in September 2020.



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